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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,165	02/19/2002	Wei Lin	3493.00297	5991

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EXAMINER	
MAIS, MARK A	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/042,165	LIN ET AL.	
	Examiner	Art Unit	
	Mark A. Mais	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/05/05; 12/09/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Applicant's claim for the benefit of prior-filed applications under 35 U.S.C. 119(e) from provisional applications 60/269,354 and 60/269,861, both filed on February 21, 2001 is acknowledged.

Information Disclosure Statement

2. The information disclosure statements (IDSs) were filed on October 5, 2005 and December 9, 2005, after the mailing date of the application on January 11, 2001. The submissions are in compliance with the provisions of 37 C.F.R. 1.97. According, the examiner considered the IDSs.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 7, 10-14, 16, 19-23, 25, 28-33, and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Yagil et al. (USP 6,732,315).

5. With regard to claims 1 and 2, Yagil et al. discloses a method for providing access to a communications medium, the communications medium being suitable for allowing use of a plurality of Home Phoneline Network Association (HPNA) v2 frames, each HPNA v2 frame being timed to allow an Inter-Frame Gap (IFG) having a duration that is substantially a duration defined by an HPNA v2 protocol specification **[Abstract; HPNA 2.0 standard, col. 1, lines 21-28]**, the method comprising steps of:

generating a message for transmission to an enhanced station (STA) **[Fig. 4; grant messages, called "MAP messages" are sent from network manager 404 to HomePN stations 300 capable of using them (enhanced), col. 9, lines 48-60]**, the enhanced STA being one of a Media Control Station (MC STA) and a non-Media Control Station (non-MC STA) **[network manager 404 controls the "enhanced" stations—those capable of using the "map messages", and prevents legacy HPNA v2.0x stations from interrupting, col. 56-60]**; and

generating at least one enhanced frame containing the message on the communications medium **[i.e., generating a "MAP message"]**, each enhanced frame having timing to allow a Shortened Inter-Frame Gap (SIFG), each SIFG having a duration that is not recognized by a HPNA v2 STA as a duration defined by an HPNA v2 protocol specification for an IFG and permitting each enhanced frame priority over pending HPNA v2 frames **[the MAP message permits a grant after an inter frame gap of 5-100 microseconds, col. 10, lines 33-41(less than 17 microseconds—claim 2); in the isochronous method, the inter frame gap is 10 microseconds, col. 10, lines 58-67; wherein inter frame gaps can be shortened to 1 microsecond, col. 11, lines 11, lines 18-22; in the presence of both types of devices, a quasi-isochronous method uses a shortened inter frame gap after a few granted bursts determined by the MAP message (and not contention), col. 11, lines 38-55]**.

6. With regard to claims 10 and 11, Yagil et al. discloses a method for providing contention-free access to a communications medium, the communications medium being suitable for allowing use of a plurality of Home Phoneline Network Association (HPNA) v2 frames, each HPNA v2 frame being timed to allow an Inter-Frame Gap (IFG) having a duration that is substantially a duration defined by an HPNA v2 protocol specification **[Abstract; HPNA 2.0 standard, col. 1, lines 21-28]**, the method comprising steps of:

generating at least one enhanced frame **[i.e., generating a "MAP message"]** on the communications medium **[Fig. 4; grant messages, called "MAP messages" are sent from network manager 404 to HomePN stations 300 capable of using them (enhanced), col. 9, lines 48-60]**, each enhanced frame having timing to allow a Shortened Inter-Frame Gap (SIFG), each SIFG having a duration that is not recognized by a HPNA v2 STA as a duration defined by an HPNA v2 protocol specification for an IFG and permitting each enhanced frame priority over pending HPNA v2 frames **[the MAP message permits a grant after an inter frame gap of 5-100 microseconds, col. 10, lines 33-41(less than 17 microseconds—claim 11); in the isochronous method, the inter frame gap is 10 microseconds, col. 10, lines 58-67; wherein inter frame gaps can be shortened to 1 microsecond, col. 11, lines 11, lines 18-22; in the presence of both types of devices, a quasi-isochronous method uses a shortened inter frame gap after a few granted bursts determined by the MAP message (and not contention), col. 11, lines 38-55]**; and

providing contention-free access to the communications medium during each enhanced frame so that only one enhanced station at a time sends a message during an enhanced frame, each enhanced being one of a Media Control Station (MC STA) and a non-Media Control Station (non-MC STA) **[network manager 404 controls the "enhanced" stations—those capable of using the "map messages", and prevents legacy HPNA v2.0x stations from interrupting, col. 9, lines 56-60]**.

7. With regard to claims 19 and 20, Yagil et al. discloses a communications network having a communications medium, the communications medium being suitable for allowing use of a plurality of Home Phoneline Network Association (HPNA) v2 frames, each HPNA v2 frame being timed to allow an Inter-Frame Gap (IFG) having a duration that is substantially a duration defined by an HPNA v2 protocol specification **[Abstract; HPNA 2.0 standard, col. 1, lines 21-28]**, the communications network comprising:

at least one non-Media Control Station (non-MC STA) coupled to the communications medium **[network manager 404 controls the "enhanced" stations—those capable of using the "map messages", and prevents legacy HPNA v2.0x stations from interrupting, col. 56-60]**; and

a Media Control Station (MC STA) generating at lease one enhanced frame **[i.e., generating a "MAP message"]** in the communications medium **[Fig. 4; grant messages, called "MAP messages" are sent from network manager 404 to HomePN stations 300 capable of using them (enhanced), col. 9, lines 48-60]**, each enhanced frame having timing to allow a Shortened Inter-Frame Gap (SIFG), each SIFG having a duration that is not recognized by a HPNA v2 STA as a duration defined by an HPNA v2 protocol specification for an IFG and permitting each enhanced frame priority over pending HPNA v2 frames **[the MAP message permits a grant after an inter frame gap of 5-100 microseconds, col. 10, lines 33-41(less than 17 microseconds—claim 20); in the isochronous method, the inter frame gap is 10 microseconds, col. 10, lines 58-67; wherein inter frame gaps can be shortened to 1 microsecond, col. 11, lines 11, lines 18-22; in the presence of both types of devices, a quasi-isochronous method uses a shortened inter frame gap after a few granted bursts determined by the MAP message (and not contention), col. 11, lines 38-55]**.

8. With regard to claims 28-30, Yagil et al. discloses a communications network having a communications medium, the communications medium being suitable for allowing use of a plurality of Home Phoneline Network Association (HPNA) v2 frames, each HPNA v2 frame being timed to allow an Inter-Frame Gap (IFG) having a duration that is substantially a duration defined by an HPNA v2 protocol specification **[Abstract; HPNA 2.0 standard, col. 1, lines 21-28]**, the communications network comprising:

a plurality of enhanced stations (STAs) coupled to the communications medium **[Fig. 4; HomePN stations 300 capable of using "MAP messages" (enhanced—claim 29), col. 9, lines 48-60]**; and

a Media Control Station (MC STA) generating at least one enhanced frame **[i.e., generating a "MAP message"]** in the communications medium **[Fig. 4; grant messages, called "MAP messages" are sent from network manager 404 to HomePN stations 300 capable of using them (enhanced—claim 29), col. 9, lines 48-60]**, each enhanced frame having timing to allow a Shortened Inter-Frame Gap (SIFG), each SIFG having a duration that is not recognized by a HPNA v2 STA as a duration defined by an HPNA v2 protocol specification for an IFG and permitting each enhanced frame priority over pending HPNA v2 frames **[the MAP message permits a grant after an inter frame gap of 5-100 microseconds, col. 10, lines 33-41(less than 17 microseconds—claim 30); in the isochronous method, the inter frame gap is 10 microseconds, col. 10, lines 58-67; wherein inter frame gaps can be shortened to 1 microsecond, col. 11, lines 11, lines 18-22; in the presence of both types of devices, a quasi-isochronous method uses a shortened inter frame gap after a few granted bursts determined by the MAP message (and not contention), col. 11, lines 38-55]**, the MC STA providing contention-free access to the communications medium to an enhanced STA during each enhanced frame so that only one enhanced STA at a time sends a message during an enhanced frame **[Figs. 7-9, only one HomePN stations 300 may transmit at any given timeslot]**, each enhanced being one of a Media Control Station (MC STA) and a non-Media Control Station (non-MC STA) **[network manager 404 controls the "enhanced" stations—those capable of using the "map messages", and prevents legacy HPNA v2.0x stations from interrupting, col. 9, lines 56-60]**.

9. With respect to claims 3, 12, 21, and 31, Yagil et al. discloses that at least one enhanced frame includes an End-of-Frame (EOF) sequence portion **[an EOF delimiter that signals the end of a "long message", col. 11, lines 59-62]**.

10. With respect to claims 4, 13, 22, and 32, Yagil et al. discloses that at least one EOF sequence portion is different from an EOF sequence defined by an HPNA v2 protocol specification for an EOF sequence of an HPNA v2 frame **[some EOF delimiters may be discarded, col. 11, lines 54-55; an EOF delimiter that signals the end of a "long message", col. 11, lines 59-62]**.

11. With respect to claims 5, 14, 23, and 33, Yagil et al. discloses that at least one enhanced frame having the EOF sequence portion includes a preamble that is different from a preamble defined by an HPNA v2 protocol specification for a preamble of an HPNA v2 frame **[the preamble may be shortened, col. 11, lines 55-57]**.

12. With respect to claims 7, 16, 25, and 35, Yagil et al. discloses that at least one enhanced frame includes a preamble that is different from a preamble defined by an HPNA v2 protocol specification for a preamble of an HPNA v2 frame **[the preamble may be shortened, col. 11, lines 55-57]**.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 6, 8, 9, 15, 17, 18, 24, 26, 27, 34, 36, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yagil et al. as applied to claims 1-5, 7, 10-14, 16, 19-23, 25, 28-33, and 35 above.

15. Yagil et al. discloses a home networking over telephone lines **[Abstract]**. Yagil et al. discloses generating a "MAP message" (grant message) and sending it from network manager 404 to HomePN stations 300 capable of using them (enhanced) **[col. 9, lines 48-60]**. Network manager 404, manages and grants timeslots (bandwidth) **(col. 9, lines 48-51)**. However, Yagil et al. does not specifically disclose that the grant message includes a time duration field (i.e., time to live). However, it is well known to those skilled in the art that time duration fields are necessary in a time-managed methodology and/or protocol [i.e., to address packet/message latency—for example, IP packets: TTL]. Moreover, Yagil et al. discloses that MAP messages include a table in which each entry is a grant of a range of timeslots to a specific station for each frame **[col. 9, line 60 to col. 10, line 4]**. Thus, it would have been obvious to those of ordinary skill in the art at the time of the invention to have included a time duration field in the MAP message because such a field would address how to handle latent packets as well as provide a mechanism for managing granted timeslots for the stations allocated those slots per frame.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

(a) Mallory et al. (USP 6,877,043), Method for distributing sets of collision resolution parameters in a frame-based communications network.

(b) Samoylenko (USP 6,252,881), Adaptive universal multiple access.

(c) Fisher et al. (USP 7,068,649), Extended bandwidth HomePNA system with HomePNA 2.0.

(d) Chen (USP 6,118,793), Method for adjusting inter-frame gap in ratio.

(e) Wu (USP 6,922,407), HomePNA 10M8 compliant transceiver.

(f) Gaspar et al. (USP 6,961,344), Verification of collision detection and resolution in a home network.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is 572-272-3138. The examiner can normally be reached on M-Th 5am-4pm.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAM
September 25, 2006

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